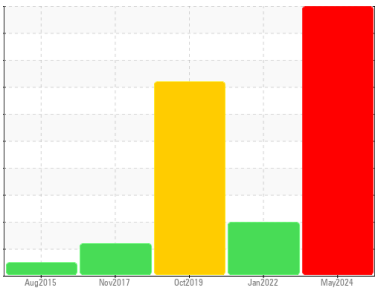
PROBLEM SUMMARY

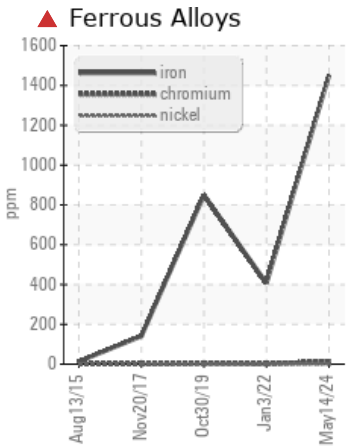
Sample Rating Trend

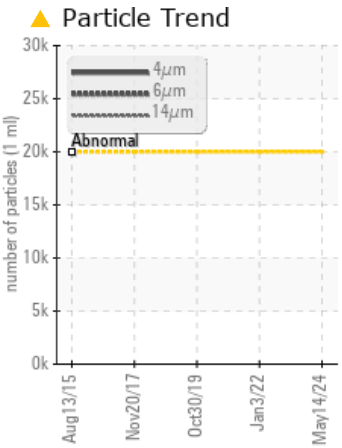


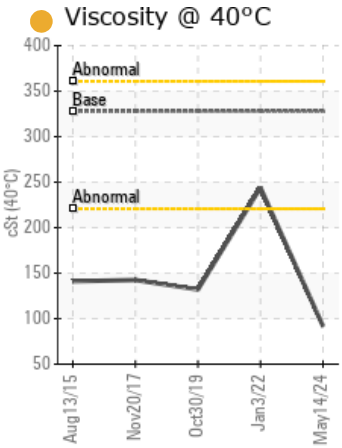
WEAR

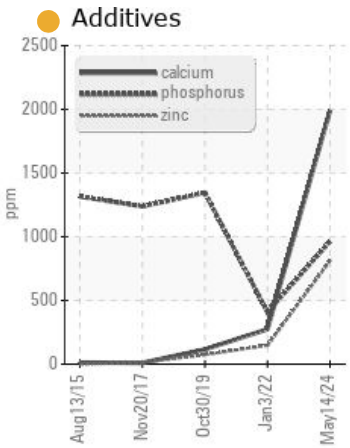
Area
Mobile Fleet
Machine Id
6413 6413
Component
Gearbox
Fluid
MOBIL MOBILUBE HD 85W140 (3 GAL)

COMPONENT CONDITION SUMMARY









RECOMMENDATION

The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185m	>200	▲ **1451**	▲ 407	▲ 849
Chromium	ppm	ASTM D5185m	>10	▲ **14**	<1	3
Particles >4µm		ASTM D7647	>20000	▲ **27038**	---	---
Particles >6µm		ASTM D7647	>5000	▲ **14729**	---	---
Particles >14µm		ASTM D7647	>640	▲ **2507**	---	---
Particles >21µm		ASTM D7647	>160	▲ **844**	---	---
Particles >38µm		ASTM D7647	>40	▲ **130**	---	---
Particles >71µm		ASTM D7647	>10	▲ **13**	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **22/21/19**	---	---
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE

Customer Id: CARBUTNC
Sample No.: WC0937771
Lab Number: 06181190
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

VISUAL METAL

03 Jan 2022 Diag: Jonathan Hester

The oil change at the time of sampling has been noted. We recommend you service the filters on this component if applicable. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to metal particles present in this sample.Moderate concentration of visible metal present. Gear wear is indicated. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

WEAR

30 Oct 2019 Diag: Jonathan Hester

The oil change at the time of sampling has been noted. We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to metal particles present in this sample.High concentration of visible metal present. Gear wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

VISUAL METAL

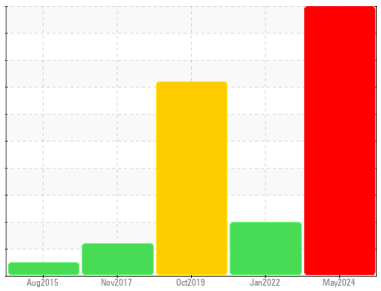
20 Nov 2017 Diag: Jonathan Hester

We recommend you service the filters on this component if applicable. We advise that you inspect for possible wear. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample. Please note that this is a corrected copy for laboratory data updates.High concentration of visible metal present. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
Mobile Fleet
Machine Id
6413 6413
Component
Gearbox
Fluid
MOBIL MOBILUBE HD 85W140 (3 GAL)

DIAGNOSIS

Recommendation
The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear
Gear wear is indicated.

Contamination
There is a high amount of particulates present in the oil. Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition
The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0937771**	WC0645014	WC0402151
Sample Date		Client Info		**14 May 2024**	03 Jan 2022	30 Oct 2019
Machine Age	hrs	Client Info		**16248**	12245	8235
Oil Age	hrs	Client Info		**4007**	4010	4040
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	ABNORMAL	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	▲ **1451**	▲ 407	▲ 849
Chromium	ppm	ASTM D5185m	>10	▲ **14**	<1	3
Nickel	ppm	ASTM D5185m	>10	**0**	<1	<1
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**<1**	<1	0
Aluminum	ppm	ASTM D5185m	>25	**2**	2	2
Lead	ppm	ASTM D5185m	>50	**0**	0	0
Copper	ppm	ASTM D5185m	>200	**15**	1	2
Tin	ppm	ASTM D5185m	>10	**0**	<1	<1
Antimony	ppm	ASTM D5185m	>5	**---**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	0

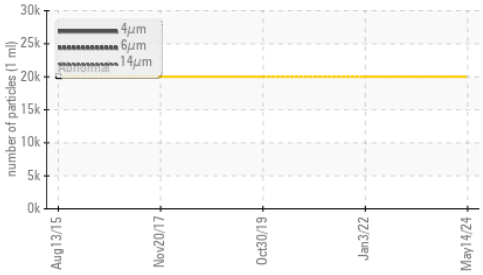
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**135**	55	497
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**9**	<1	<1
Manganese	ppm	ASTM D5185m		**11**	2	4
Magnesium	ppm	ASTM D5185m		**48**	26	725
Calcium	ppm	ASTM D5185m		● **1990**	274	116
Phosphorus	ppm	ASTM D5185m		**963**	409	1345
Zinc	ppm	ASTM D5185m		● **811**	147	74
Sulfur	ppm	ASTM D5185m		● **15765**	15682	22019

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**25**	10	23
Sodium	ppm	ASTM D5185m		**3**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**<1**	0	<1
Water	%	ASTM D6304	>0.2	**0.187**	---	---
ppm Water	ppm	ASTM D6304	>2000	**1870**	---	---

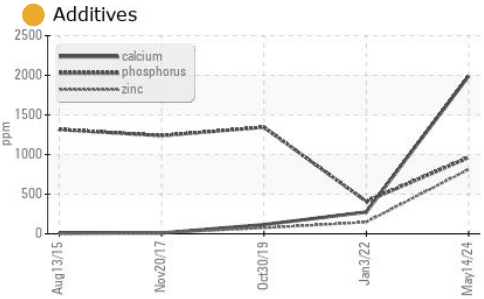
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **27038**	---	---
Particles >6µm		ASTM D7647	>5000	▲ **14729**	---	---
Particles >14µm		ASTM D7647	>640	▲ **2507**	---	---
Particles >21µm		ASTM D7647	>160	▲ **844**	---	---
Particles >38µm		ASTM D7647	>40	▲ **130**	---	---
Particles >71µm		ASTM D7647	>10	▲ **13**	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **22/21/19**	---	---

OIL ANALYSIS REPORT

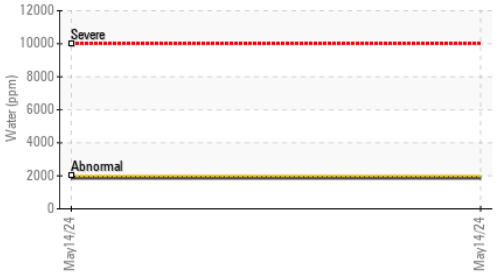
Particle Trend



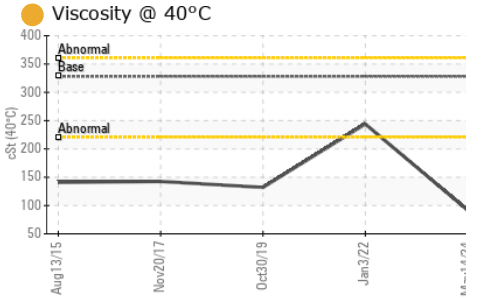
Additives



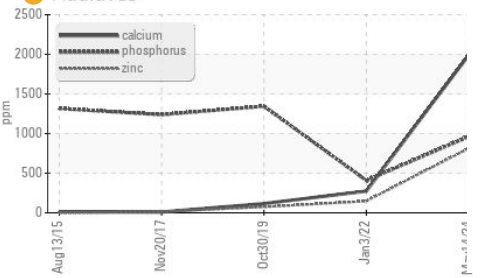
Water (KF)



Viscosity @ 40°C

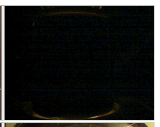
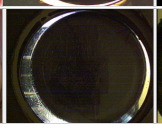
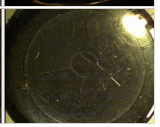


Additives



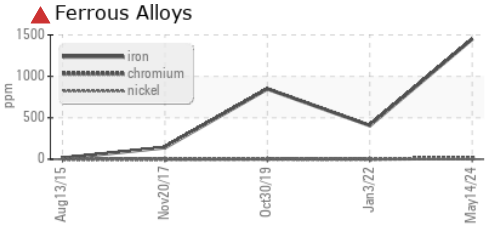
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	▲ MODER	▲ HEAVY
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	328	● **91.9**	244	132

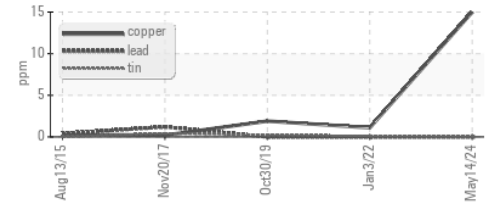
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

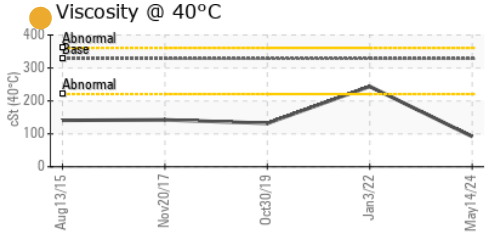
Ferrous Alloys



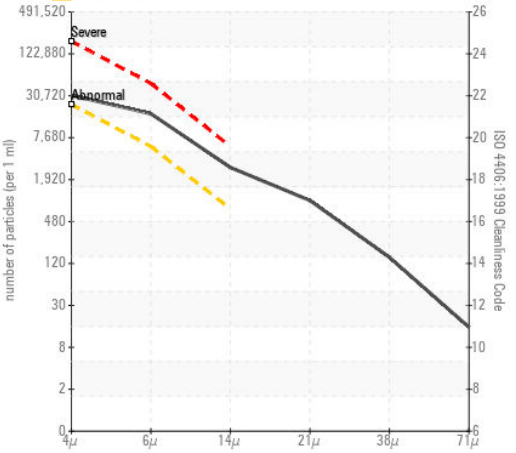
Non-ferrous Metals



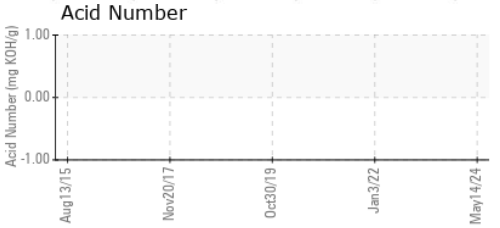
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0937771 **Received** : 16 May 2024
Lab Number : 06181190 **Tested** : 20 May 2024
Unique Number : 11032516 **Diagnosed** : 20 May 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: KF, PrtCount)

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

CAROLINA SUNROCK
PO BOX 25
BUTNER, NC
US 27509
Contact: Leigh Dennis
rdennis@thesunrockgroup.com
T: (919)575-4505
F: (919)575-0162